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EXAMINER

YANG, RYAN R

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/775,058	<b>Applicant(s)</b> KIM, YOUNG-CHAN	
	<b>Examiner</b> Ryan R. Yang	<b>Art Unit</b> 2628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 11/7/2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) See Continuation Sheet is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-19 and 76 is/are allowed.
- 6) ☒ Claim(s) 20,22,23,26-31,34,35,40,41,47,49,52,54-61,63,64,66,67,69-73 and 77-80 is/are rejected.
- 7) ☒ Claim(s) 74 and 75 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

Continuation of Disposition of Claims: Claims pending in the application are 1-20,22,23,26-31,34,35,40,41,47,49,52,54-61,63,64,66,67 and 69-80.

**DETAILED ACTION**

***(Reissue Applications)***

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/7/2008 has been entered.

2. Claims 1-20, 22-23, 26-31, 34-35, 40, 41, 47, 49, 52, 54-61, 63, 64, 66, 67, 69-80 are pending in this application. Claims 1, 5, 13, 20, 34-35, 40, 47, 49, 52, 55, 57, 59, 71-73 and 76-78 are independent claims, claims 20, 34, 35, 40, 49, 52, 54-55, 57, 59, 71, 72, 77 and 80 were amended, and claims 32 and 53 were canceled. This action is non-final.

This application is a reissue application of Application No. 09/412,745 filed 10/5/1999, which is now Patent No. 6,346,972, which has Foreign Priority dated 5/26/1999.

3. The present title of the invention is "Video display apparatus with on-screen display pivoting function" as filed originally.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it

is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 20, 22, 23, 26-31, 34, 35, 40, 41, 47, 52-61, 63, 64, 66, 67, 69-72, 74, 77 and 79-80 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

6. The claim 20 limitation “generating a mode signal indicating a rotated state of the screen body according to manipulation of a key to indicate the rotated state of the screen body” has no support from the specification.

The claim 34 limitation “receiving an externally input video signal having a second image; displaying the second image; modifying OSD data corresponding to the first image including the OSD with respect to a position of the rotatable screen when the screen is rotated, according to a key manipulation to indicate the position of the rotatable screen; and displaying the first image that corresponds to the modified OSD data on the second image displayed on the rotatable screen” has no support from the specification.

The claim 35 limitation “a controller to generate a mode signal indicating a rotated state of the screen body according to a key manipulation by a user to indicate a rotated position of the screen body” is not supported by the specification.

Claim 40 has similar limitations as claim 34, and is rejected for the same reason as claim 34.

The claim 47 limitation “generating a mode signal indicating a rotated state of the screen body in response to a rotation of the screen body” is not supported by the specification.

The claim 52 limitation “a control unit to generate at least one of a mode signal indicating a rotated state of the display unit and a OSD driving signal according to a key manipulation by a user to indicate the rotated state of the display unit” is not supported by the specification.

The claim 55 limitation “generating a least one of a mode signal to indicate a rotated state of the display unit and the OSD driving signal according to manipulation of a function key by a user to indicate the rotated state of the display unit” is not supported by the specification.

The added claims 52 and 55 limitation “and request an OSD, respectively” also is not supported by the specification.

The claim 57 limitation “a control unit to generate a mode signal indicating a rotated state of the display unit according to manipulation of a function key to indicate the rotated state of the screen body” is not supported by the specification.

The claim 59 limitation “generating a mode signal indicating a rotated state of the display unit according to a key manipulation to indicate the rotated state of the screen body” is not supported by the specification.

The claim 71 limitation “generating a mode signal indicating a rotated state of the display unit in response to a key manipulation to indicate the rotated state of the screen body” has no support from the specification.

The claim 72 limitation “a display unit to display a picture of externally input color component video signals on the screen body and to display an OSD image simultaneously on the displayed picture” has no support from the specification.

The claim 77 limitation “a controller to receive a mode signal to indicate a rotated state of the display unit” is not supported by the specification.

All the dependent claims are rejected for the same reasons as their respective parent claims.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 80 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 80 recites the limitation "mode control signal" in line 2. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 103***

8. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim 78 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kishimoto et al. (US 5,134,390) in view of Alioshin et al. (US 5,986,634).

25. As per claim 78, Kishimoto et al., hereinafter Kishimoto, discloses a method of displaying an on-screen display (OSD) image on a video display apparatus having a rotatable display, the method comprising:

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receiving at least one of a mode control signal to indicate a rotated state of the display (Figure 1, item 9; “The end position detection circuit 903 supplies display rotary position information 903 to the main control unit ... in accordance with the position detection signals 117a and 118a supplied from the rotary position detection switches 117 and 118”, column 5, line 21-27; and FIG. 1, where item 2 can manipulate display mode; “an operator can make the display 11 to rotate upon manipulation of the keyboard 2 at any time the operator desire”, column 4, line 64- column 5, line 4) and a OSD control signal generated by the user to request generation of an OSD image (“A keyboard 2 is used by an operator to input a command to the main control unit 1 and input character information”, column 3, line 28-30, where the character information is consider OSD image);

generating an OSD image in response to the OSD control signal (“The buffer control unit 74 controls the data input/output of a rotation buffer 75 which temporarily stores character codes such as guidance information 62 for the purpose of rotating the character codes”, column 6, line 18-23);

pivoting the generated OSD signal in accordance to the rotated state of the display in response to the mode control signal (“A rotation control unit 76 outputs the data stored in the rotation buffer through conversion of the memory storage addresses so as to display the data on the display by rotating the character codes by 90 degrees”, column 6, line 23-27); and



displaying the pivoted OSD image with a picture of externally inputted video signals on the rotated display according to the mode control signal and the OSD control signal (Figure 6, where 51 is OSD image and 52 is externally inputted signals).

It is noted that Kishimoto does not explicitly disclose the image signal is from external, However, this is known in the art as taught by Alioshin et al., hereinafter Alioshin. Alioshin discloses an image displaying apparatus in which the signal is generated from external (Figure 3, item 70).

Thus, it would have been obvious to one of ordinary skill in the art to incorporate the teaching of Alioshin into Kishimoto because Kishimoto discloses a method of displaying images and Alioshin further discloses the image signal could be generated from outside for the purpose of simplifying receiving circuits.

9. Claims 34-35, 47, 52, 54-56, 61, 63, 64, 67, 73 and 79 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kishimoto et al. (5,134,390) in view of Register (US 5,661,632).

10. As per Claim 34, Kishimoto discloses a method of displaying a first image including an on-screen display (OSD) in a video display apparatus having a screen and a rotatable screen body, the method comprising:

receiving an externally input video signal having a second image ("An image input unit 4, e.g., an image scanner, reads image information on a medium in the form of binary signals", column 3, line 30-32, where the image scanner receives image from external; video signal is sent to the display);

displaying the second image (Figure 1, item 11);

modifying OSD data corresponding to the first image including the OSD with respect to a position of the rotatable screen when the screen is rotated, according to a key manipulation to indicate the position of the rotatable screen (Figure 6, where the guidance information 62 is modified (66 or 69) to remain in perspective with respect to the rotated screen; and since the OSD 66 and 69 are at different position in relation to the pictures image 65, they inherently indicate a rotated screen; alternately, the control level could also be considered as an indication (column 4, line 58-64); and FIG. 1, where item 2 can manipulate display mode; “an operator can make the display 11 to rotate upon manipulation of the keyboard 2 at any time the operator desire”, column 4, line 64- column 5, line 4); and

displaying the first image that corresponds to the modified OSD data on the second image displayed on rotatable screen (Figure 1, item 11 and Figure 6 is a modified first image on a second image).

Kishimoto discloses a method of displaying a first image. It is noted that Kishimoto does not explicitly disclose the image signal is from external and rotating an OSD “according to a key manipulation to indicate the position of the rotatable screen” and “wherein the key is located on the screen body”. However, this is known in the art as taught by Register. Register discloses image signals could be generated from external (Figure 6, item 110, 112, 114 and 116) and a method of rotating an OSD in which it is rotated by a key located on the screen body (“to accommodate this reorientation of its display screen image 52, as well as the command test and/or graphics C within the command icons 54a, 54b may be similarly rotated ninety degrees

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in a clockwise orientation using one of the toggle buttons 28, 30, 32 and 34 (representatively the toggle button 34)", column 3, line 65- column 4, line 4, where 54a and 54b are considered OSD).

Thus, it would have been obvious to one of ordinary skill in the art to incorporate the teaching of Register into Kishimoto because Kishimoto discloses a method of displaying an image and Register discloses manipulation of the OSD can be done by a key located on a displaying for the purpose of making a device more compact.

11. As per Claim 35, Kishimoto discloses a video display apparatus having a screen body to display an on- screen display (OSD) image, the video display apparatus comprising:

a converter to receive externally inputted video signals having a picture ("An image display control unit 8 controls the display of image data on a display 11, e.g., to determine the display position, magnification and display format of image data", column 3, line 42-45);

a controller to generate a mode signal indicating a rotated state of the screen body according to a key manipulation by a user to indicate a rotated position of the screen body (Figure 1, item 9; "The end position detection circuit 903 supplies display rotary position information 903 to the main control unit ... in accordance with the position detection signals 117a and 118a supplied from the rotary position detection switches 117 and 118", column 5, line 21-27; and since the OSD 66 and 69 are at different position in relation to the pictures image 6 and 65, they inherently indicate a rotated screen; alternately, the control level could also be considered as an indication

(column 4, line 58-64); and FIG. 1, where item 2 can manipulate display mode; “an operator can make the display 11 to rotate upon manipulation of the keyboard 2 at any time the operator desire”, column 4, line 64- column 5, line 4); and

a circuit unit to display the picture of the externally inputted video signals on the screen body and to display the OSD image containing information about operation of the screen body at a rotated position in accordance with the mode signal on the displayed picture (Figure 1, item 4 is the external inputted signal; Figure 7 is a circuit unit; Figure 6 shows rotated states; “guidance information 62, e.g., for function keys, is displayed on the display screen 63 as the guidance information 66 and on the display screen 67 as the guidance information 69”, column 5, line 66- column 6, line 1, where the guidance information is considered the OSD).

Kishimoto discloses a method of displaying a image. It is noted that Kishimoto does not explicitly disclose the image signal is from external and rotating a OSD “according to a key manipulation to indicate the position of the rotatable screen” and “wherein the key is located on the screen body”. However, this is known in the art as taught by Register. Register discloses a method of rotating an OSD in which the image signal could be from external (Figure 6, items 110, 112, 114 and 116) and the OSD is rotated by a key located on the screen body (“to accommodate this reorientation of its display screen image 52, as well as the command test and/or graphics C within the command icons 54a, 54b may be similarly rotated ninety degrees in a clockwise orientation using one of the toggle buttons 28, 30, 32 and 34 (representatively the

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toggle button 34)”, column 3, line 65- column 4, line 4, where 54a and 54b are considered OSD).

Thus, it would have been obvious to one of ordinary skill in the art to incorporate the teaching of Register into Kishimoto because Kishimoto discloses a method of displaying an image and Register discloses manipulation of the OSD can be done by a key located on a displaying for the purpose of making a device more compact.

12. Claim 47 is similar in scope as claim 35, therefore is similarly rejected as claim 35.

13. As per claim **52**, Kishimoto discloses a video display apparatus having a rotatable display unit, the video display apparatus comprising:

an external signal unit to receive an external image signal (“An image input unit 4, e.g., an image scanner, reads image information on a medium in the form of binary signals”, column 3, line 30-32, where the image scanner receives image from external; video signal is sent to the display);

an OSD generator to generate an internal OSD image signal in response to an OSD driving signal (Figure 7, “The image display control unit 8 includes a character bit map memory (BMM) 77 for storing character codes such as the guidance information 62 sent via the character code bus 800, and an image bit map memory (BMM) 81 for storing image data sent via the system bus 3 ... The buffer control unit 74 controls the data input/output of a rotation buffer ... A rotation control unit 76 outputs the data stored in the rotation buffer 75 through conversion of the memory of the memory storage address”, column 6, line 10-27);

a control unit to generate at least one of a mode signal indicating a rotated state of the display unit and a OSD driving signal according to a key manipulation by a user to indicate the rotated sate of the display unit and request and OSD, respectively (Figure 1, item 9; “The end position detection circuit 903 supplies display rotary position information 903 to the main control unit ... in accordance with the position detection signals 117a and 118a supplied from the rotary position detection switches 117 and 118”, column 5, line 21-27; and since the OSD 66 and 69 are at different position in relation to the pictures image 6 and 65, they inherently indicate a rotated screen; alternately, the control level could also be considered as an indication (column 4, line 58-64); and FIG. 1, where item 2 can manipulate display mode; “an operator can make the display 11 to rotate upon manipulation of the keyboard 2 at any time the operator desire”, column 4, line 64- column 5, line 4); and

a circuit unit to drive the display unit to display the external image signal and to drive the display unit to display the internal OSD image signal at a rotated position in accordance with the mode signal generated by the control unit (Figure 1, item 4 is the external inputted signal; Figure 7 is a circuit unit; Figure 6 shows rotated states; “guidance information 62, e.g., for function keys, is displayed on the display screen 63 as the guidance information 66 and on the display screen 67 as the guidance information 69”, column 5, line 66- column 6, line 1, where the guidance information is considered the OSD).

Kishimoto discloses a method of displaying rotated image. It is noted that Kishomoto does not explicitly disclose the image signal could be from external and

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“wherein the display unit comprises one or more function keys to change the operation settings thereof by indicating the rotated state of the display unit such that the circuit unit drives the display unit to display the internal OSD image signal in response to a selection of the one or more function keys”. However, this is known in the art as taught by Register. Register discloses a method of rotating an OSD in which the image signal could be from external (Figure 6, items 110, 112, 114 and 116) and the OSD is rotated by a key located on the screen body (“to accommodate this reorientation of its display screen image 52, as well as the command test and/or graphics C within the command icons 54a, 54b may be similarly rotated ninety degrees in a clockwise orientation using one of the toggle buttons 28, 30, 32 and 34 (representatively the toggle button 34)”, column 3, line 65- column 4, line 4, where 54a and 54b are considered OSD).

Thus, it would have been obvious to one of ordinary skill in the art to incorporate the teaching of Register into Kishimoto because Kishimoto discloses a method of displaying an image and Register discloses manipulation of the OSD can be done by a key located on a displaying for the purpose of making a device more compact.

14. As per claim 54, Kishimoto and Register demonstrated all the elements as disclosed in claim 52, and Register further discloses “a screen and a rotatable screen body surrounding the screen having the one or more function keys installed thereon”, (Figure 1, item 26 and items 34a and 34b).

15. As per claim **55**, since it is a method of controlling a video display with the claim limitation similar to claim 52, it is similarly rejected as claim 52.

16. As per claim **56**, the claim limitation is similar to claim 53, therefore is similarly rejected as claim 53.

17. As per claim 61, Kishimoto and Register demonstrated all the elements as disclosed in the rejected claim 34, and Kishimoto further discloses wherein the displaying of the first image that corresponds to the modified OSD data on the second image displayed on the rotatable screen comprises displaying the first image in a center of the rotatable screen (“FIG. 6, an image 65 of the image data is displayed on the screen at the same position, while the display 11 physically rotated by 90 degrees”, column 5, line 57-59, for the image to remain at the same position after rotation, the image is inherently at the center of the display).

18. As per claim **63**, Kishimoto and Register demonstrated all the elements as disclosed in the rejected claim 40, and further discloses the limitation similar to claim 61, therefore it is similarly rejected as claim 61.

19. As per claim **64**, Kishimoto and Register demonstrated all the elements as disclosed in the rejected claim 34, and Register further discloses a rotatable display in which an image can be used for control input (“Different command text and/or graphics “C” is appropriately displayed in each of the command icons 54a”, column 3, line 41-42).

Thus, it would have been obvious to one of ordinary skill in the art to incorporate the teaching of Register into Kishimoto because Kishimoto discloses a rotatable display and Register discloses the displayed graphical icons in the window can be control input in order easily change the display setting.



20. As per claim 67, Kishimoto and Register demonstrated all the elements as disclosed in the rejected claim 34, supra, and Kishimoto further discloses the first image including the OSD indicates screen viewing settings comprising at least one of a brightness of a screen picture affecting the displayed second image and a size of the screen picture affecting the displayed second image ("The character data are superposed on the image 65 after being converted to a predetermined position and magnification factor, in according with a display mode defining the shape and dimension of a display area", column 6, line 2-6).

21. As per claim 73, since the claim limitation is similar in scope as claim 52, it is similarly rejected as claim 52 (where the circuit unit is considered the pivot circuit).

22. As per claim 79, Register further discloses a key unit to generate the mode control signal to indicate a rotated state of the screen body by the user (Figure 1, item 34).

23. Claims 20, 22-23, 26-29, 40, 41, 66, 69, 71 and 72 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kishimoto et al. (5,134,390) in view of Register (US 5,661,632) and further in view of Ishii (US 6,639,603).

As per Claim **20**, Kishimoto discloses a method of displaying an on-screen display (OSD) in a video display apparatus having a screen and a rotatable screen body supporting the screen, the method comprising:

generating a mode signal indicating a rotated state of the screen body according to manipulation of a key to indicate the rotated state of the screen body (Figure 1, item 9; "The end position detection circuit 903 supplies display rotary position information

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903 to the main control unit ... in accordance with the position detection signals 117a and 118a supplied from the rotary position detection switches 117 and 118”, column 5, line 21-27; and since the OSD 66 and 69 are at different position in relation to the pictures image 6 and 65, they inherently indicate a rotated screen; alternately, the control level could also be considered as an indication (column 4, line 58-64); and FIG. 1, where item 2 can manipulate display mode; “an operator can make the display 11 to rotate upon manipulation of the keyboard 2 at any time the operator desire”, column 4, line 64- column 5, line 4); and

displaying a picture of externally inputted color component video signals on the screen body and displaying the OSD image on the displayed picture at a rotated position in accordance with the mode signal (Figure 1, item 4 shows where the externally image is inputted and Figure 6 shows rotated position; “guidance information 62, e.g., for function keys, is displayed on the display screen 63 as the guidance information 66 and on the display screen 67 as the guidance information 69”, column 5, line 66- column 6, line 1, where the guidance information is considered the OSD).

Kishimoto discloses a method of displaying a image. It is noted that Kishimoto does not explicitly disclose the image signal could be from external and rotating an OSD “according to a key manipulation to indicate the position of the rotatable screen” and “wherein the key is located on the screen body”. However, this is known in the art as taught by Register. Register discloses a method of rotating an OSD in which the image signal could be from external (Figure 6, items 110, 112, 114, and 116) and the OSD is rotated by a key located on the screen body (“to accommodate this reorientation of its

display screen image 52, as well as the command test and/or graphics C within the command icons 54a, 54b may be similarly rotated ninety degrees in a clockwise orientation using one of the toggle buttons 28, 30, 32 and 34 (representatively the toggle button 34)”, column 3, line 65- column 4, line 4, where 54a and 54b are considered OSD).

Thus, it would have been obvious to one of ordinary skill in the art to incorporate the teaching of Register into Kishimoto because Kishimoto discloses a method of displaying an image and Register discloses manipulation of the OSD can be done by a key located on a displaying for the purpose of making a device more compact.

It is also noted that Kishimoto and Register do not explicitly disclose the video signals could be colored. However, this is known in the art as taught by Ishii. Ishii discloses a displaying method in which color video signals could be inputted (Figure 4, item 410 where the signals are received; “The attribute controller 418 optionally re-maps or alters the color represented by the display data using a register color look-up table and outputs pixel data”, column 5, line 52-56).

Thus, it would have been obvious to incorporate the teaching of Ishii into Kishimoto and Register because Kishimoto and Register disclose a method of displaying and rotating image and Ishii discloses the image could be colored for the purpose of displaying more realistic images.

24. As per Claim **22**, Kishimoto, Register and Ishii demonstrated all the elements as disclosed in the rejected claim 20, and Kishimoto further discloses wherein the user input is made by a direct key selection (“an operator can make the display 11 to rotate

upon manipulation of the keyboard 2 at any time the operator desire”, column 4, line 64-column 5, line 4).

25. As per Claim **23**, Kishimoto, Register and Ishii demonstrated all the elements as disclosed in the rejected claim 20, and Kishimoto further discloses rotating the OSD in accordance with the mode signal ((“an operator can make the display 11 to rotate upon manipulation of the keyboard 2 at any time the operator desire”, column 4, line 64-column 5, line 4, where the signal to rotate is the mode signal).

26. As per Claim **26**, Kishimoto, Register and Ishii demonstrated all the elements as disclosed in the rejected claim 23, and Register further discloses

the OSD image rotating operation comprises reordering read sequence of the OSD data which is stored in a data memory (“The subroutine then arranges the data patterns within the memory 104 such that the video controller 106 displays the data on the display screen 108 in an orientation that is rotated ninety degrees”, column 5, line 13-16).

27. As per Claim **27**, Kishimoto, Register and Ishii demonstrated all the elements as disclosed in the rejected claim 26, and Register further discloses the reordering operation is made to form characters and/or symbols represented by the OSD data in a perpendicularly rotated manner (texts or symbols that are perpendicularly rotated in Figure 4 and Figure 5, items 54a and 54b).

28. As per Claim **28**, Kishimoto, Register and Ishii demonstrated all the elements as disclosed in the rejected claim 23, and Register further discloses reordering read addresses of the OSD data which is stored in a data memory (“The subroutine then

arranges the data patterns within the memory 104 such that the video controller 106 displays the data on the display screen 108 in an orientation that is rotated ninety degrees”, column 5, line 13-16).

29. As per Claim **29**, Kishimoto, Register and Ishii demonstrated all the elements as disclosed in the rejected claim 28, and since the claim limitation is similar to claim 27, it is similarly rejected as claim 27.

30. As per Claim **40**, Kishimoto discloses a method of displaying a first image including an on-screen display (OSD) color component video signal in a video display apparatus having a rotatable screen, the method comprising:

receiving an external color component video signal having a second image (“An image input unit 4, e.g., an image scanner, reads image information on a medium in the form of binary signals”, column 3, line 30-32, where the image scanner receives image from external; video signal is sent to the display);

displaying the second image to the video display apparatus (Figure 1, item 11);

modifying OSD data corresponding to the first image including the OSD color component video signal with respect to an angle of rotation of the screen when the screen is rotated, according to manipulation of a key to indicate the angle of rotation (Figure 6, where the guidance information 62 is modified (66 or 69) to remain in perspective with respect to the rotated screen; and since the OSD 66 and 69 are at different position in relation to the pictures image 65, they inherently indicate a rotated screen; alternately, the control level could also be considered as an indication (column 4, line 58-64); and FIG. 1, where item 2 can manipulate display mode; “an operator can

make the display 11 to rotate upon manipulation of the keyboard 2 at any time the operator desire”, column 4, line 64- column 5, line 4); and

displaying the first image corresponding to the modified OSD data on the second image displayed on the rotated screen (Figure 1, item 11 and Figure 6 is a modified first image on a second image).

Kishimoto discloses a method of displaying a first image. It is noted that Kishimoto does not explicitly disclose the image signal could be from external and rotating an OSD “according to a key manipulation to indicate the position of the rotatable screen” and “wherein the key is located on the screen body”. However, this is known in the art as taught by Register. Register discloses a method of rotating an OSD in which the image signal could be from external (Figure 6, items 110, 112, 114 and 116) and the OSD is rotated by a key located on the screen body (“to accommodate this reorientation of its display screen image 52, as well as the command test and/or graphics C within the command icons 54a, 54b may be similarly rotated ninety degrees in a clockwise orientation using one of the toggle buttons 28, 30, 32 and 34 (representatively the toggle button 34)”, column 3, line 65- column 4, line 4, where 54a and 54b are considered OSD).

Thus, it would have been obvious to one of ordinary skill in the art to incorporate the teaching of Register into Kishimoto because Kishimoto discloses a method of displaying an image and Register discloses manipulation of the OSD can be done by a key located on a displaying for the purpose of making a device more compact.

It is also noted that Kishimoto and Register do not explicitly disclose the video signals could be colored. However, this is known in the art as taught by Ishii. Ishii discloses a displaying method in which color video signals could be inputted (Figure 4, item 410 where the signals are received; “The attribute controller 418 optionally re-maps or alters the color represented by the display data using a register color look-up table and outputs pixel data”, column 5, line 52-56).

Thus, it would have been obvious to incorporate the teaching of Ishii into Kishimoto and Register because Kishimoto and Register disclose a method of displaying and rotating image and Ishii discloses the image could be colored for the purpose of displaying more realistic images.

31. As per claim **41**, Kishimoto, Register and Ishii demonstrated all the elements as disclosed in the rejected claim 40, and Kishimoto further discloses an OSD screen that can be rotated in either directions (Figure 2 where the rotary shaft 115a can be rotated clockwise or counterclockwise).

32. As per claims 66, Kishimoto, Register and Ishii demonstrated all the elements as disclosed in the rejected claim 40, and Register further discloses a rotatable display in which an image can be used for control input (“Different command text and/or graphics “C” is appropriately displayed in each of the command icons 54a”, column 3, line 41-42).

33. As per claim **69**, Kishimoto, Register and Ishii demonstrated all the elements as disclosed in the rejected claim 40, supra, and since the claim limitation is similar to claim 67, therefore is similarly rejected as claim 67.

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34. As per Claim **71**, Kishimoto discloses a method of displaying an on-screen display (OSD) in a video display apparatus having a screen and a rotatable screen body supporting the screen, the method comprising:

generating a mode signal indicating a rotated state of the screen body in response to a key manipulation to indicate the rotated state of the screen body ("The end position detection circuit 903 supplies display rotary position information 903 to the main control unit ... in accordance with the position detection signals 117a and 118a supplied from the rotary position detection switches 117 and 118", column 5, line 21-27; and since the OSD 66 and 69 are at different position in relation to the pictures image 6 and 65, they inherently indicate a rotated screen; alternately, the control level could also be considered as an indication (column 4, line 58-64); and FIG. 1, where item 2 can manipulate display mode; "an operator can make the display 11 to rotate upon manipulation of the keyboard 2 at any time the operator desire", column 4, line 64-column 5, line 4, where the keyboard provides input of mode signal indicating a rotated state of the screen body); and

displaying a picture of externally inputted color component video signals on the screen body and displaying the OSD image simultaneously on the displayed picture (Figure 1, item 4 shows where the externally image is inputted and Figure 6 shows rotated position; "guidance information 62, e.g., for function keys, is displayed on the display screen 63 as the guidance information 66 and on the display screen 67 as the guidance information 69", column 5, line 66- column 6, line 1, where the guidance



information is considered the OSD and it is simultaneously displayed on the displayed picture 65); and

wherein the OSD image is rotated with respect to the screen body in response to the mode signal (“an operator can make the display 11 to rotate upon manipulation of the keyboard 2 at any time the operator desire”, column 4, line 64- column 5, line 4, where the keyboard provides input of mode signal indicating a rotated state of the screen body).

Kishimoto discloses a method of displaying a first image. It is noted that Kishimoto does not explicitly disclose rotating an OSD “wherein the key is located on the screen body”. However, this is known in the art as taught by Register. Register discloses a method of rotating an OSD in which it is rotated by a key located on the screen body (“to accommodate this reorientation of its display screen image 52, as well as the command test and/or graphics C within the command icons 54a, 54b may be similarly rotated ninety degrees in a clockwise orientation using one of the toggle buttons 28, 30, 32 and 34 (representatively the toggle button 34)”, column 3, line 65- column 4, line 4, where 54a and 54b are considered OSD).

Thus, it would have been obvious to one of ordinary skill in the art to incorporate the teaching of Register into Kishimoto because Kishimoto discloses a method of displaying an image and Register discloses manipulation of the OSD can be done by a key located on a displaying for the purpose of making a device more compact.

It is also noted that Kishimoto and Register do not explicitly disclose the video signals could be colored. However, this is known in the art as taught by Ishii. Ishii

discloses a displaying method in which color video signals could be inputted (Figure 4, item 410 where the signals are received; “The attribute controller 418 optionally re-maps or alters the color represented by the display data using a register color look-up table and outputs pixel data”, column 5, line 52-56).

Thus, it would have been obvious to incorporate the teaching of Ishii into Kishimoto and Register because Kishimoto and Register disclose a method of displaying and rotating image and Ishii discloses the image could be colored for the purpose of displaying more realistic images.

35. As per Claim **72**, Kishimoto discloses a video display apparatus having a screen and a rotatable screen body supporting the screen, the apparatus comprising:

A key unit to generate a mode signal indicating a rotated state of the screen body (“an operator can make the display 11 to rotate upon manipulation of the keyboard 2 at any time the operator desire”, column 4, line 64- column 5, line 4, where the keyboard provides input of mode signal indicating a rotated state of the screen body); and

A display unit to display a picture of externally inputted color component video signals on the screen body and displaying an OSD image simultaneously on the displayed picture (Figure 1, item 4 shows where the externally image is inputted and Figure 6 shows rotated position; “guidance information 62, e.g., for function keys, is displayed on the display screen 63 as the guidance information 66 and on the display screen 67 as the guidance information 69”, column 5, line 66- column 6, line 1, where the guidance information is considered the OSD and it is simultaneously displayed on the displayed picture 65),

wherein the OSD image is rotated with respect to the screen body in response to the mode signal (“an operator can make the display 11 to rotate upon manipulation of the keyboard 2 at any time the operator desire”, column 4, line 64- column 5, line 4, where the keyboard provides input of mode signal indicating a rotated state of the screen body).

Kishimoto discloses a method of displaying a first image. It is noted that Kishimoto does not explicitly disclose rotating an OSD “wherein the key is located on the screen body”. However, this is known in the art as taught by Register. Register discloses a method of rotating an OSD in which it is rotated by a key located on the screen body (“to accommodate this reorientation of its display screen image 52, as well as the command test and/or graphics C within the command icons 54a, 54b may be similarly rotated ninety degrees in a clockwise orientation using one of the toggle buttons 28, 30, 32 and 34 (representatively the toggle button 34)”, column 3, line 65- column 4, line 4, where 54a and 54b are considered OSD).

Thus, it would have been obvious to one of ordinary skill in the art to incorporate the teaching of Register into Kishimoto because Kishimoto discloses a method of displaying an image and Register discloses manipulation of the OSD can be done by a key located on a displaying for the purpose of making a device more compact.

It is also noted that Kishimoto and Register do not explicitly disclose the video signals could be colored. However, this is known in the art as taught by Ishii. Ishii discloses a displaying method in which color video signals could be inputted (Figure 4, item 410 where the signals are received; “The attribute controller 418 optionally re-maps

or alters the color represented by the display data using a register color look-up table and outputs pixel data”, column 5, line 52-56).

Thus, it would have been obvious to incorporate the teaching of Ishii into Kishimoto and Register because Kishimoto and Register disclose a method of displaying and rotating image and Ishii discloses the image could be colored for the purpose of displaying more realistic images.

36. Claims 30 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kishimoto et al. (5,134,390), Register (US 5,661,632), Ishii (US 6,639,603) and further in view of Sakamoto et al. (5,329,289).

37. As per Claim **30**, Kishimoto, Register and Ishii demonstrated all the elements as disclosed in the rejected claim 20.

Kishimoto, Register and Ishii disclose an OSD display screen. It is noted that Kishimoto, Register and Ishii do not explicitly disclose reading OSD data contained in the OSD image as first OSD data and modifying the first OSD data as second OSD data according to the generated mode signal, however, this is known in the art as taught by Sakamoto et al., hereinafter Sakamoto. Sakamoto discloses

reading OSD data contained in the OSD image as first OSD data (“data on an onscreen display stored in the display status storing region in the RAM 11b is read through the CPU 10 in the initialization routine stored in the ROM 11a (S2)”, column 4, line 52-55); and

modifying the first OSD data as second OSD data according to the generated mode signal (“If it is recognized as the vertically elongated screen, a command is

accordingly sent through the CPU 10 to the display controller 16 to set a vertically elongated on-screen format to the display unit 3 (S4)", column 4, line 58-62).

Thus, it would have been obvious to one of ordinary skill in the art to incorporate the teach of Sakamoto into Kishimoto, Register and Ishii because Kishimoto, Register and Ishii disclose a method of display dual mode image and Sakamoto discloses the generated image could be modified in order for it to be suitably displayed in different modes.

38. As per Claim **31**, Kishimoto, Register and Ishii and Sakamoto demonstrated all the elements as disclosed in the rejected claim 30, and Sakamoto further discloses the modifying operation comprises:

storing a write address of the first OSD data in a predetermined format that corresponds to the rotated position of the screen body ("the RAM 38 is a memory which can write/read upon occasion and which has a function to temporarily store input data ", column 8, line 40-42).

Thus, it would have been obvious to one of ordinary skill in the art to incorporate the teach of Sakamoto into Kishimoto, Register and Ishii because Kishimoto, Register and Ishii disclose a method of displaying an OSD image and Sakamoto discloses the generated image could be modified in order for it to be suitably displayed in different mode.

39. Claims 57, 59 and 70 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kishimoto, Register, Ishii (US 6,639,603) and further in view of Wehmeyer et al. (US 5,543,857).

As per claim 57, Kishimoto discloses a video display apparatus having a rotatable display unit to display an image of an external color component video signal, the video display apparatus comprising:

an OSD generator to generate an OSD color component video signal (Figure 7, “The image display control unit 8 includes a character bit map memory (BMM) 77 for storing character codes such as the guidance information 62 sent via the character code bus 800, and an image bit map memory (BMM) 81 for storing image data sent via the system bus 3 ... The buffer control unit 74 controls the data input/output of a rotation buffer ... A rotation control unit 76 outputs the data stored in the rotation buffer 75 through conversion of the memory of the memory storage address”, column 6, line 10-27);

a control unit to generate a mode signal indicating a rotated state of the display unit according to manipulation of a function key to indicate the rotated state of the screen body (Figure 1, item 9; “The end position detection circuit 903 supplies display rotary position information 903 to the main control unit ... in accordance with the position detection signals 117a and 118a supplied from the rotary position detection switches 117 and 118”, column 5, line 21-27; and since the OSD 66 and 69 are at different position in relation to the pictures image 6 and 65, they inherently indicate a rotated screen; alternately, the control level could also be considered as an indication (column 4, line 58-64); and FIG. 1, where item 2 can manipulate display mode; “an operator can make the display 11 to rotate upon manipulation of the keyboard 2 at any time the operator desire”, column 4, line 64- column 5, line 4); and

a circuit unit to drive the display unit to display the OSD color component video signal on the image of the external color component video signal at a rotated position in accordance with the mode signal generated by the control unit (Figure 1, item 4 is the external inputted signal; Figure 7 is a circuit unit; Figure 6 shows rotated states; “guidance information 62, e.g., for function keys, is displayed on the display screen 63 as the guidance information 66 and on the display screen 67 as the guidance information 69”, column 5, line 66- column 6, line 1, where the guidance information is considered the OSD).

Kishimoto discloses a method of displaying a first image. It is noted that Kishimoto does not explicitly disclose rotating an OSD “wherein the key is located on the display unit”. However, this is known in the art as taught by Register. Register discloses a method of rotating an OSD in which it is rotated by a key located on the screen body (“to accommodate this reorientation of its display screen image 52, as well as the command test and/or graphics C within the command icons 54a, 54b may be similarly rotated ninety degrees in a clockwise orientation using one of the toggle buttons 28, 30, 32 and 34 (representatively the toggle button 34)”, column 3, line 65- column 4, line 4, where 54a and 54b are considered OSD).

Thus, it would have been obvious to one of ordinary skill in the art to incorporate the teaching of Register into Kishimoto because Kishimoto discloses a method of displaying an image and Register discloses manipulation of the OSD can be done by a key located on a displaying for the purpose of making a device more compact.

It is noted that Kishimoto and Register do not explicitly disclose the video signals could be colored. However, this is known in the art as taught by Ishii. Ishii discloses a displaying method in which color video signals could be inputted (Figure 4, item 410 where the signals are received; “The attribute controller 418 optionally re-maps or alters the color represented by the display data using a register color look-up table and outputs pixel data”, column 5, line 52-56).

Thus, it would have been obvious to incorporate the teaching of Ishii into Kishimoto and Register because Kishimoto and Register disclose a method of displaying and rotating image and Ishii discloses the image could be colored for the purpose of displaying more realistic images.

It is also noted that Kishimoto, Register and Ishii do not explicitly disclose the OSD could be colored. However, this is known in the art as taught by Wehmeyer et al., hereinafter Wehme”. Wehmeyer discloses a displaying method in which the OSD is colored (“OSD Processor 800 produces image signals at Red, Green, and Blue color signal output terminals”, column 4, line 42-44).

Thus, it would have been obvious to incorporate the teaching of Wehmeyer into Kishimoto, Register and Ishii because Kishimoto, Register and Ishii disclose a method of displaying and rotating image and Wehmeyer discloses the image could be colored for the purpose of displaying more informative image.

40. As per claim 59, Kishimoto, Register, Ishii and Wehmeyer disclose a method of controlling a video display apparatus having a rotatable display unit, the method



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comprising steps similar to claim 57 limitations, therefore is similarly rejected as claim 57.

41. As per claim 70, Kishimoto, Register, Ishii and Wehmeyer demonstrated all the elements as disclosed in the rejected claim 57, and Register further discloses the rotatable display unit display unit displays the OSD image on the screen according to manipulation of another key ("command text and/or graphics C within the command icons 54a, 54b may be similarly rotated ninety degrees in a clockwise orientation using one of the toggle buttons 28, 30, 32 and 34 (representatively the toggle button 34)", column 4, line 1-4).

42. Claims 58 and 60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kishimoto, Register, Ishii (US 6,639,603) and Wehmeyer et al. (US 5,543,857), and further in view of Alioshin et al. (US 5,986,634).

43. As per claim **58**, Kishimoto, Register, Ishii and Wehmeyer demonstrated all the elements as disclosed in the rejected claim 57, and Kishimoto further discloses:

an external signal unit to receive an external image signal such that the circuit unit further drives the display unit to display the external image signal with the OSD image signal (Figure 1, item 4, "an image scanner, reads image information on a medium in the form of binary signals", column 3, line 31-32).

It is noted that Kishimoto, Register, Ishii and Wehmeyer do not explicitly disclose the image signal is from external, However, this is known in the art as taught by Alioshin et al., hereinafter Alioshin. Alioshin discloses a image displaying apparatus in which the signal is generated from external (Figure 3, item 70).

Thus, it would have been obvious to one of ordinary skill in the art to incorporate the teaching of Alioshin into Kishimoto, Register, Ishii and Wehmeyer because Kishimoto, Register, Ishii and Wehmeyer disclose a method of displaying image and Alioshin further disclose the image signal could be generated from outside for the purpose of simplifying receiving circuits.

44. As per claim 60, Kishimoto, Register, Ishii and Wehmeyer demonstrated all the elements as disclosed in the rejected claim 59, and Alioshin further discloses the steps similar to claim 58 limitations, therefore is similarly rejected as claim 58.

#### ***Allowable Subject Matter***

45. Claims 1-19 and 76 are allowed.

Claims 74 and 75 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Response to Arguments***

49. Applicant's arguments filed 11/7/2008 have been fully considered but they are not persuasive.

Applicant has not overcome the 112 rejection. The claims 20, 35, 47, 49, 52, 55, 57, 59 and 71 are not fully supported by the specification. The specification only discloses "to generate the mode control signal" (column 6, line 17) and "a signal showing the pivot enable status" (column 7, line 28), not "generating a mode signal

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indicating a rotated state of the screen body". The "mode signal" as claimed is a signal to indicate a state; the "mode control signal" as disclosed is a signal to control operations. As per claims 34 and 40, although the specification supports manipulation of images, it does not support generation and manipulation of a first image and a second image with an interrelationship of the first image and the second image. As per claim 72, the sighted teaching does not support the "simultaneous" displaying limitation.

Applicant's arguments with respect to claims 34, 35, 47, 61, 64 and 67 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments with respect to claims 20, 22, 23, 26-31, 40, 41, 52, 54-56, 63, 66, 69, 71 and 72 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments with respect to claims 57-60 and 70 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

### ***Inquiries***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan R. Yang whose telephone number is (571) 272-7666. The examiner can normally be reached on M-F 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ulka Chauhan can be reached on (571) 272-7664. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

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/Ryan R Yang/  
Primary Examiner, Art Unit 2628  
January 13, 2009